



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0388; Project Identifier MCAI-2020-01604-T]

RIN 2120-AA64

Airworthiness Directives; MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2C11 (Regional Jet Series 550), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), and CL-600-2E25 (Regional Jet Series 1000) airplanes. This proposed AD was prompted by reports of the failure of certain primary ejector fuel feed flexible hoses, which may have a thinner liner than specified by design requirements, and are therefore more susceptible to cracking. This proposed AD would require replacing the hoses. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Bombardier service information identified in this NPRM, contact MHI RJ Aviation ULC, 12655 Henri-Fabre Blvd., Mirabel, Québec J7N 1E1 Canada; Widebody Customer Response Center North America toll-free telephone +1-844-272-2720 or direct-dial telephone +1-514-855-8500; fax +1-514-855-8501; email thd.crj@mhij.com; Internet <https://mhij.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0388; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email 9-avs-nyacocos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0388; Project Identifier MCAI-2020-01604-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email

9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2020-03, dated March 5, 2020 (TCCA AD CF-2020-03) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2C11 (Regional Jet Series 550), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), and CL-600-2E25 (Regional Jet Series 1000) airplanes. You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0388.

This proposed AD was prompted by reports of the failure of primary ejector fuel feed flexible hoses with more than 30,000 flight hours, installed in accordance with Bombardier Service Bulletin 670BA-28-008C, dated January 23, 2003. In four of the events, the fuel was leaking inside the center fuel tank from the cracked inner liner of the hose, and caused a lateral fuel imbalance condition on the airplane. These events resulted in an emergency descent or air turn back (ATB). Subsequent investigation determined that hoses with part numbers (P/N) CC670-62022-3 and CC670-62022-4, and serial numbers 001 through 2470 inclusive, may have a thinner Teflon® liner than specified by the design requirements, and therefore are more susceptible to cracking. Analysis also indicates that, depending on the size of the crack and the resultant amount of fuel leakage, a fuel supply disruption to the engines could be significant enough to cause an inflight engine shutdown (IFSD). The FAA is proposing this AD to address a possible fuel hose leak, which could cause a lateral imbalance with an adverse effect on the

airplane's controllability, or could result in a dual IFSD. See the MCAI for additional background information.

Related Service Information under 1 CFR Part 51

Bombardier has issued Service Bulletin 670BA-28-040, dated September 30, 2019. This service information describes procedures for, among other actions, replacing any primary ejector fuel feed flexible hose, (P/N) CC670-62022-3 and CC670-62022-4, having serial numbers 001 through 2470 inclusive. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the service information already described.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 457 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
12 work-hours X \$85 per hour = \$1,020	\$2,872	\$3,892	\$1,778,644

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.):

Docket No. FAA-2022-0388; Project Identifier MCAI-2020-01604-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) airplanes identified in paragraphs (c)(1) through (3) of this AD, certificated in any category.

(1) Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) and CL-600-2C11 (Regional Jet Series 550) airplanes, serial numbers 10002 through 10325 inclusive.

(2) Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15263 inclusive.

(3) Model CL-600-2E25 (Regional Jet Series 1000), serial numbers 19001 through 19013 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel system.

(e) Unsafe Condition

This AD was prompted by reports of the failure of certain primary ejector fuel feed flexible hoses, which may have a thinner liner than specified by design requirements, and are therefore more susceptible to cracking. The FAA is issuing this AD to address a possible fuel hose leak, which could cause a lateral imbalance with an adverse effect on the airplane's controllability, or result in a dual inflight engine shutdown (IFSD).

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

At the applicable time specified in figure 1 to paragraph (g) of this AD: Replace each hose having part number (P/N) CC670-62022-3 and P/N CC670-62022-4 and serial number 001 through 2470 inclusive, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-28-040, dated September 30, 2019.

Figure 1 to paragraph (g) – Compliance Schedule

Airplane Model	Compliance Time
CL-600-2C10 and CL-600-2C11 airplanes, serial numbers 10005 through 10065 inclusive, that have accumulated less than 31,200 flight hours since Bombardier Service Bulletin (SB) 670BA-28-008 was incorporated	Prior to the accumulation of 40,000 flight hours since SB 670BA-28-008 was incorporated
CL-600-2C10 and CL-600-2C11 airplanes, serial numbers 10005 through 10065 inclusive, that have accumulated 31,200 flight hours or more since SB 670BA-28-008 was incorporated	Within 8,800 flight hours after the effective date of this AD

Airplane Model	Compliance Time
CL-600-2C10 and CL-600-2C11 airplanes, serial numbers 10002 through 10004 inclusive and 10066 through 10325 inclusive, that have accumulated less than 31,200 total flight hours as of the effective date of this AD	Prior to the accumulation of 40,000 total flight hours
CL-600-2C10 and CL-600-2C11 airplanes, serial numbers 10002 through 10004 inclusive and 10066 through 10325 inclusive, that have accumulated 31,200 total flight hours or more as of the effective date of this AD	Within 8,800 flight hours after the effective date of this AD
CL-600-2D15 and CL-600-2D24 airplanes, serial numbers 15001 through 15263 inclusive, that have accumulated less than 31,200 total flight hours as of the effective date of this AD	Prior to the accumulation of 40,000 total flight hours
CL-600-2D15 and CL-600-2D24 airplanes, serial numbers 15001 through 15263 inclusive, that have accumulated 31,200 total flight hours or more as of the effective date of this AD	Within 8,800 flight hours after the effective date of this AD
CL-600-2E25 airplanes, serial numbers 19001 through 19013 inclusive, that have accumulated less than 31,200 total flight hours as of the effective date of this AD	Prior to the accumulation of 40,000 total flight hours
CL-600-2E25 airplanes, serial numbers 19001 through 19013 inclusive, that have accumulated 31,200 total flight hours or more as of the effective date of this AD	Within 8,800 flight hours after the effective date of this AD

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or MHI RJ Aviation ULC's TCCA Design Approval Organization

(DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2020-03, dated March 5, 2020, for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0388.

(2) For more information about this AD, contact Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email 9-avs-nyaco-cos@faa.gov.

(3) For Bombardier service information identified in this AD, contact MHI RJ Aviation ULC, 12655 Henri-Fabre Blvd., Mirabel, Québec J7N 1E1 Canada; Widebody Customer Response Center North America toll-free telephone +1-844-272-2720 or direct-dial telephone +1-514-855-8500; fax +1-514-855-8501; email thd.crj@mhirj.com; Internet <https://mhirj.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on March 25, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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